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Hidden Players in a Deadly Game: Biological Warfare Programs Worldwide

An Intelligence Assessment

Top Secret

SW 88-10076CX

December 1988

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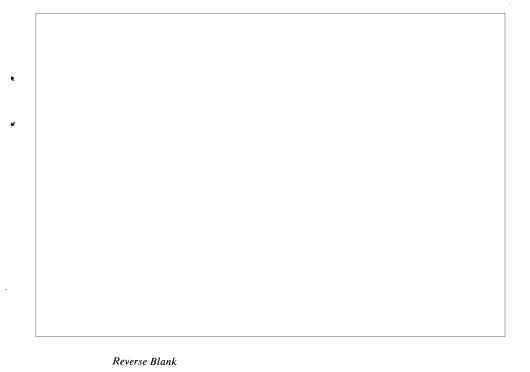
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				Top Secret	25X1
		Game:	Players in a Deadly Biological Wa <u>rfare</u> ms Worldwide		25 X 1
	Key Judgments Information available as of 1 November 1988 was used in this report.	biologic destruct Biologic ture of Biologic paylogic Product Use of May result of the Biologic paylogic paylo	countries are discovering that, with all weapons are potentially one of tion ever developed: gical agents can cause mass fatalist time and resources. gical weapons provide the broades ad of any weapon system. action of biological weapons is different for biological weapons can be masked to necessarily be detected. The fective defense exists against biological with a modestly developed in defense industry can establish a but chooses to do so. Any nation—a:—could develop and deploy biological y nations possessed offensive biological weapons in the fective defense and deploy biological weapons to do so. Any nation—a:—could develop and deploy biological weapons biological weapons in the fective defense industry can establish a but chooses to do so. Any nation—a:—could develop and deploy biological weapons in the fective defense industry can establish a but chooses to do so. Any nation—a:—could develop and deploy biological weapons in the fective defense and deploy biological weapons and deploy biological weapons are detected.	the most lethal weapons of mass ties with relatively small expenditarea coverage per pound of ficult to detect. The detect of the many ways, so that the user or	25X1
		we can	not be certain that still other coun	ntries do not have BW programs.	25 X 1
•		already particul weapon rival to	cal warfare programs generally are have well established chemical warry true in the Third World. And so, one country's initiation of a BW follow suit.	arfare (CW) programs; this is d, as with the spread of chemical program often induces a regional	25 X 1
		geneticToxin to devEast a a biole	relopment of new technologies—su engineering—is also creating an i s that are highly flexible for use have relop and produce. (For example, so are developing botulinus toxin—th ogical warfare agent. With moder xin can be made within days.)	ave become quick and inexpensive several countries in the Middle e causative agent of botulism—as	
			iii	Top Secret	25 X 1
				SW 88-10076CX December 1988	25 X 1



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 More sophisticated, use-specific pathogens—living organisms—are being developed by countries with advanced biotechnology resources. There is a growing, and largely unregulated, international market in pharmaceutical and biotechnology equipment and reagents. Efforts to negotiate more effective controls on BW, as well as treaty compliance monitoring, will face serious impediments with the increasing proliferation of BW programs and the relative ease with which agent production capabilities can be acquired: Standard medical laboratory equipment and commercial pharmaceutical and vaccine production plants can be used to develop and produce agents for biological weapons. Locating BW programs in their initial research and development phases is extremely difficult. Direct purchase of necessary equipment and expertise from other countries can eliminate the requirement for an indigenous technology base from which to develop a BW program. 	 There is a growing, and largely unregulated, international market in pharmaceutical and biotechnology equipment and reagents. Efforts to negotiate more effective controls on BW, as well as treaty compliance monitoring, will face serious impediments with the increasing proliferation of BW programs and the relative ease with which agent production capabilities can be acquired: Standard medical laboratory equipment and commercial pharmaceutical and vaccine production plants can be used to develop and produce agents for biological weapons. Locating BW programs in their initial research and development phases is extremely difficult. Direct purchase of necessary equipment and expertise from other countries can eliminate the requirement for an indigenous technology 			
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			pharmaceutical and biotechnology equ	uipment and reagents.

